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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 18

Application Number: 09/526,442  
Filing Date: March 16, 2000  
Appellant(s): AHMED, KAMRAN

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Michel Belanger  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/13/03 and refaxed on 12/12/03.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is deficient because on page 4 line 4 appellant alleges the controller combines (blend and/or overlay) the at least two first surfaces while the specification did not describe blending and overlaying two first surfaces.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-7 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,764,201                      Ranganathan                      06-1998

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant amended claim 1 by altering the function of the first display controller from "combine (blend and/or overlay) the at least two first surfaces" to at least one of blend and overlay the at least two first surfaces. Similarly applicant amended claim 1 by altering the function of the second display controller from "combine (blend and/or overlay) the at least two second surfaces" to at least one of blend and overlay the at least two second surfaces. This amendment was to overcome a 35 USC 112 second paragraph rejection of the phrase

“blend and/or overlay”. The amended limitations “at least one of blend and overlay” clearly states that which applicant intends to be the invention, however, this invention is not supported by the originally filed specification including the specification incorporated by reference, since the specifications did not describe the display controller as performing both blending and overlaying one surface onto another surface to create the screen image.

The incorporated by reference patent application, 09/526,440, at page 8 lines 8-19 describes the CRTCs as either blending or overlaying one surface onto another surface to create a screen image (logo blended or overlaid within a video surface, page 8 lines 12-13) and the ‘440 application describes with reference to figure 4 and page 8 lines 21-28 using the drawing engine 60 to blend using the capability within the display controller to create a blended YUV surface which as shown in figure 4 is stored in memory 50 and then accessed by the CRTCs to form the subpicture blending (YUV over RGB overlay) 70. Thus, the ‘440 application did not describe the claimed invention of a display controller that reads from a graphics memory at least two surfaces into at least two pixel paths, convert at least one of the at least two surfaces, scale at least one of the at least two surfaces, and at least one of blend and overlay the at least two surfaces.

The ‘442 application describes reading two surfaces from a graphics memory, converting at least one of the surfaces, scaling at least one of the surfaces, and blending or overlaying the at least two surfaces. The ‘442 application did not describe

how the display controller can both blend and overlay two surfaces (and how to blend and overlay more than two surfaces).

Thus, the originally filed specification fails to convey that applicant had possession of the claimed invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ranganathan, U.S. Patent No. 5,764,201.

Ranganathan teaches a first display controller for combining graphics and movie for displaying graphics and movie on the LCD graphics display in the simultaneous mode, column 7 lines 42-50. Ranganathan's first display controller reads from a graphics memory (column 12 lines 15-19) at least two first surfaces (graphics and movie) into at least two pixel paths 36 and 34, converts the second surface (movie) from YUV to RGB, scales the movie surface in scaler 64, and overlays the at least two first surfaces in multiplexer 42, said first surfaces containing any one of RGB (graphics) and YUV (movie) format video. Ranganathan's first display controller is caused to select and read said first surfaces, convert said first surfaces into a like first format at least when

said first surfaces are not all in said like first format ( performed in color space converter 66), scaling at least one of said first surfaces (performed in scaler 64), overlaying said first surfaces to obtain a combined first surface (performed in multiplexer 42), and outputting said overlayed first surface to provide a first output stream of pixel data (output to path 30). In Ranganathan's first display controller flexibility is provided by selection of said first surface as well as scaling and blending of said first surfaces, whether said first surface is in RGB format, YUV format or mixed RGB/YUV format.

Ranganathan does teach a second display controller because in the dual mode, column 7 lines 51-67 the CRT displays the movie and the LCD displays the graphics. However, the circuitry shown by Ranganathan does not allow the CRT and the LCD to display different overlayed images. However, at column 7 lines 63-65 Ranganathan suggests that to do so would be desirable and that additional logic is needed.

Ranganathan fails to teach a second display controller having the same features of the first display controller. Specifically Ranganathan fails to teach providing a second display controller able to read from a graphics memory at least two second surfaces into at least two pixel paths, convert at least one of the at least two second surfaces, scale at least one of the at least two second surfaces, and at least one of blend and overlay the at least two second surfaces, said second surfaces containing any one of RG8 and YUV format video; causing said second display controller to select and read said second surfaces, convert said second surfaces into a like second format at least when said second surfaces are not in said like second format, scaling at least one of said second surfaces, at least one of blend and overlay said second surfaces to obtain a

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combined second surface, and outputting said combined second surface to provide a second output stream of pixel data, whereby flexibility is provided by selection of said second surface as well as scaling and blending of said second surface, whether said second surface is in RGB format, YUV format or mixed RGB/YUV format.

It would have been obvious to one of ordinary skill in the art at the time of applicants invention to modify Ranganathan to have additional logic, as suggested by Ranganathan at col. 12 lines 9 to 12 and col. 7 lines 56-67 and by the simultaneous mode, the dual mode, and the reverse-dual mode, so a first and second display controller exists allowing a first display to display overlayed, scaled, and converted first surfaces and allowing a second display to display overlayed, scaled, and converted second surfaces.

#### From Advisory Action

The amendment filed 05/13/03 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because: it enters new matter into the specification. The amendment to page 8 enters new matter because figure 4 does not describe the RGB which is overlaid with YUV as a RGB desktop. It seems from figure 4 that the RGB is part of a window, see the text associated with YUV over RGB overlay.

The arguments concerning the 112 first paragraph rejection incorrectly asserts figure 4 as showing each CRTC performing both blending and overlaying. In figure 4 CRTC1 is shown generating a YUV image over a RGB image. Figure 4 shows CRTC2



generating a full screen output of video with sub picture blending. Nowhere in figure 4 is shown a CRTC blending and overlaying two surfaces. Thus, the 112 first paragraph rejection stands.

**(11) Response to Argument**

At pages 5 to 9 of the Brief appellant presents arguments concerning the first issue.

The specification originally described at page 2 lines 19-20 *combine (blend and /or overlay) the at least two first surfaces*. The claims originally claimed at claim 1 line 6 *combine (blend and /or overlay) the at least two first surfaces* and claimed at line 11 *combine (blend and /or overlay) the at least two second surfaces*. The examiner made a 35 USC 112 second paragraph rejection based upon these limitations in claim 1. Applicant amended claim 1 by altering the function of the first display controller from *combine (blend and/or overlay) the at least two first surfaces* to *at least one of blend and overlay the at least two first surfaces*. Similarly applicant amended claim 1 by altering the function of the second display controller from *combine (blend and/or overlay) the at least two second surfaces* to *at least one of blend and overlay the at least two second surfaces*.

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In the Brief at page 6 first full paragraph to line 2 of page 7 appellant defines the term blending. The discussion is agreed with by the Examiner. In the Brief at page 7 first two full paragraphs appellant defines overlaying. The discussion is agreed with by the Examiner. In the last two lines of the second full paragraph at page 7 appellant correctly states the blending unit can be used to either blend or overlay at least two surfaces. Appellant discusses the incorporated by reference patent application in the paragraph spanning pages 7 and 8 of the Brief. Appellant correctly discusses the subject matter taught by this incorporated by reference patent application. Appellants discussion found at page 8 lines 13 to 17 stated: It follows in a straightforward manner from the specification as filed that the operation of blending and overlaying can be achieved by blending two surfaces using the drawing engine 60 to provided a blended surface, and then to use the blending unit 18 in the controller to blend or overlay the blended surface with another surface. This discussion does not support one aspect of the claimed invention because claim 1 claims to blend and overlay two first surfaces and to blend and overlay two second surfaces. The phrase at least two first surfaces means two first surfaces, three first surfaces, four first surfaces, etc. The phrase at least two second surfaces means two second surfaces, three second surfaces, four second surfaces, etc. Appellants discussion at page 9 lines 7 to 11 states: *From the specification, it can be understood that two surfaces are first blended together by the drawing engine, creating a blended surface within the memory. This blended surface is then read from memory and overlaid with another surface by the blending*

*unit within the display controller. What is then output to the display by the controller is a blended surface overlaid onto another surface.* This discussion does not support the above described one aspect of the claimed invention because claim 1 claims to blend and overlay two first surfaces and to blend and overlay two second surfaces. The term at least two first surfaces means two first surfaces, three first surfaces, four first surfaces, etc. The term at least two second surfaces means two second surfaces, three second surfaces, four second surfaces, etc. Serial no. 09/526,440 at page 8 lines 21-24 and discussed by appellant at the top of page 8 of the Brief supports blending the logo surface and the picture surface, storing the blended surfaces, and then overlaying the blended surface with a desktop surface. However, it does not support the display controller performing this function and it does not support first and second display controllers performing this function. This procedure is performed by blending two surfaces with drawing engine 60 of the graphics controller and then overlaying the blended surface with a third surface by the CRTC1 or CRTC2. There is only one drawing engine 60 in the graphics controller while there are two display controllers, a first display controller (CRTC1) and a second display controller (CRTC2). Figure 4 and page 8 lines 21-24 of Serial no. 09/526,440 does not describe CRTC1 or CRTC2 as causing the drawing engine 60 to blend the logo onto the picture. Thus, the drawing engine 60 is independent of CRTC1 or CRTC2. Therefore, appellants arguments presented at pages 8 to 9 of the Brief are moot because support does not exist in the specification of this application or Serial no. 09/526,440 for the claimed first display controller to blend two surfaces and then to

overlay the blended surface with a third surface and for the claimed second display controller to blend two surfaces and then to overlay the blended surface with a third surface.

At pages 9 to 11 of the Brief appellant presents arguments concerning the second issue. Figure 4, see appendix E, shows the logo as RGB and does not show "other windows or desktop etc" of figure 4 as being RGB. This application and Serial no. 09/526,440 do not describe the "other windows or desktop etc" as being RGB, thus, the proposed amendment raises the issue of new matter. The desktop could use any type of display format, this is all this application and Serial no. 09/526,440 teaches. To attempt to add to the specification disclosure to a more general thing that is not inherently present enters new matter into the specification. An RGB desktop is not inherent to applicants specification because a desktop could be monochrome, thus not RGB, and a desktop could be for a TV which is not RGB. Page 6 lines 4 to 9 of this application teaches converting RGB alpha format into YUV 4:2:2 + alpha format or converting RGB32 into YUV 4:2:2 + alpha data and states this is useful for outputting a Windows desktop surface as a standard video signal. Here the specification teaches that applicants Windows desktop surface is RGB alpha format or RGB32. The sentence proposed to be added by appellant is broader than that which was described by appellants specification. A Windows desktop is more specific than the proposed desktop. As discussed above a desktop includes desktops for monochrome monitors and TVs both which are not RGB. Page 7 lines 16 to 18 of the originally filed

specification teaches RGB Windows desktop while the proposed amendment proposed adding RGB desktop. A RGB Windows desktop is more specific than the proposed RGB desktop. A RGB Windows desktop is more specific than a RGB desktop because the former is a Microsoft Windows product and the latter is more generic. A desktop is broader because it covers desktops different than a Microsoft Windows desktop such as a MS-DOS desktop or a Xerox systems desktop or an Apple desktop or a Linux desktop or a Web TV desktop. Clearly appellant is attempting to add disclosure that which is broader than originally disclosed. Thus, appellant is proposing to add to the specification disclosure that is broader than that which was originally disclosed as seen in the underlined sentence found in Appendix F and appellants originally filed specification. Thus, appellants arguments concerning this issue are moot.

At pages 11 to 15 of the Brief appellant presents arguments concerning the third issue.

The following discussion of Ranganathan addresses the issues raised at pages 11 to 13.

Ranganathan teaches with reference to figure 7B and column 7 lines 51 to 67 a first display controller comprising YUV path 34 with additional logic such as that shown in RGB path 36 and teaches a second display controller comprising RGB path 36. Column 7 lines 63 to 65 teaches adding additional logic to the YUV path 34 to allow the YUV path 34 to produce a movie window on a graphics background. Column 12 lines

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19 to 21 also teaches additional logic is necessary to overlay a movie window onto graphics. This additional logic would have to be similar to RGB path 36. Column 7 lines 66 to 67 teaches displaying two completely different images on the two displays. When a movie window is displayed overlaid onto graphics on the CRT, another RGB path similar to RGB path 36 is required to display a completely different graphics image on the CRT. Column 12 lines 9 to 12 teaches the two displays may be the same type of monitor such as CRT and states this will allow twice the graphics to be displayed. Twice the graphics means the graphics on each CRT will be different graphics. This teaches for each CRT there is a RGB path to produce twice the graphics. Since a movie window is taught by Ranganathan to be overlaid onto graphics on the CRT at column 7 lines 56 to 65 then a YUV path and a RGB path for each CRT is necessary to produce the completely different images discussed at column 7 lines 66 to 67. This teaches and suggests to one of ordinary skill in the art the claimed first and second display controllers.

At page 13 lines 18 to 20 appellant alleges Ranganathan does not disclose nor suggest a second display controller and a first display controller both having blending and overlaying capability of both YUV and RGB surfaces. Appellants argument is adding too much to the claimed invention. The claimed invention only requires blending or overlaying not both blending and overlaying, thus, a prior art reference only needs to teach one of these two graphics functions. Ranganathan clearly teaches overlaying at column 5 lines 20 to 26 and column 7 lines 61 to 65 because to have a movie window

overlaid on top of the graphics screen so that the graphics data underneath the movie window 28 is not visible is to overlay the smaller movie window on the graphics background. At column 5 lines 5 to 16 Ranganathan uses the term overlay to describe the overlaying of the YUV video data onto the RGB graphics data. Therefore, appellants arguments at page 13 lines 18 to 20 are not persuasive.

In the paragraph spanning pages 13 to 14 appellant alleges Ranganathan does not suggest a second RGB path next to YUV path 34 and a second YUV path next to RGB path 36 to allow a movie window on a graphics background to be equally available on both the LCD and CRT. This argument is not persuasive because as stated above column 12 lines 9 to 12 teaches the two displays may be the same type of monitor such as CRT and states this will allow twice the graphics to be displayed. Twice the graphics means the graphics on each CRT will be different graphics. This teaches for each CRT there is a RGB path to produce the twice the graphics. Since a movie window is taught by Ranganathan to be overlaid onto graphics on the CRT at column 7 lines 56 to 65 then a YUV path and a RGB path for each CRT is necessary to produce the completely different images discussed at column 7 lines 66 to 67. This teaches and suggests to one of ordinary skill in the art the claimed first and second display controllers.

In the paragraph spanning pages 14 to 15 appellant argues that Ranganathan does not teach a different movie window for each of the two displays and alleges exhibit G correctly represents what Ranganathan teaches. As discussed above column 12


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lines 9 to 12 teaches the two displays may be the same type of monitor such as CRT and states this will allow twice the graphics to be displayed. Twice the graphics means the graphics on each CRT will be different graphics. This teaches for each CRT there is a RGB path to produce the twice the graphics. Since a movie window is taught by Ranganathan to be overlaid onto graphics on the CRT at column 7 lines 56 to 65 then a YUV path and a RGB path for each CRT is necessary to produce the completely different images discussed at column 7 lines 66 to 67. Thus, Ranganathan clearly teaches and suggests the claimed first and second display controllers and that appellants characterization of Ranganathan in Exhibit G is incorrect.

For the above reasons, it is believed that the rejections should be sustained.




Respectfully submitted,

  
Jeffery A. Brier  
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January 21, 2004

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